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ABSTRACT

Annual reports submitted to the federal government by eight states for 1975 and 1977 in compliance with criteria established by the Adams case were examined. Employment data from 232 formerly all-white institutions in the 8 states were evaluated, with emphasis on the public institutions in Arkansas, Georgia, Florida, and Maryland. The other states are North Carolina, Oklahoma, Pennsylvania, and Virginia. In every primary occupational activity, white males dominated the highest salary levels and black females the lowest. Black faculty in all the institutions were the least likely to have tenure, and few held faculty positions of high rank. Women held most of the low-paying, dead-end jobs, and among men and women working in full-time, year-round jobs, the women workers' earnings were only a fraction of the earnings of men. Minority women in such jobs were the lowest paid. Discriminant analysis of change in employment by institutional type between 1975 and 1977 showed that community colleges led the way in hiring black faculty and that among blacks in these institutions, women were the greatest gainers. Arkansas, the smallest employer of workers in its higher education system, documented the greatest increases in proportions of blacks hired. In Florida black men and women did not fare as well as might have been expected; the number of black employees in Georgia did not reflect that state's relatively large black population; and Maryland reduced the number of black employees in several occupational categories. It is concluded that in spite of the Adams employment criterion, relatively little progress has been made to correct inequities. (Author/SW)

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the Adams States, 1975 to 1977

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ABSTRACT

One of the principles established in the Adams litigation was that inequities in the employment of blacks at all levels in the public colleges and universities of the affected states should be eliminated. The Adams states are required to file detailed annual reports with the federal government to show that progress is being made toward that objective. The researcher examined the reports of eight states for the years 1975 and 1977.

Employment data from 232 formerly all-white institutions in the eight states were examined, and particular attention was paid to the public institutions in four of the states: Arkansas, Georgia, Florida, and Maryland. While some improvements were made during the two-year period, the traditional advantages held by whites over blacks and males over females did not diminish appreciably.

In every primary occupational activity, white males dominated the highest salary levels and black females the lowest. Black faculty in all the institutions were found to be the least likely to have tenure, and few held faculty positions of high rank. The primary gainers in all top positions were white males. Women held most of the low-paying, dead-end jobs, and among men and women working in full-time, year-round jobs, the women worker's earnings were only a fraction of the earnings of men. Minority women in such jobs were the lowest paid of all.

Although the gains for blacks were minuscule, discriminant analysis of change in employment by institutional type between 1975 and 1977 showed that community colleges led the way in hiring black faculty and that among blacks in these institutions, women were the greatest gainers. Flagship institutions, on the other hand, tended to hire more blacks in non-faculty positions.

Arkansas, the smallest employer of workers in its higher education system, did document the greatest increases in proportions of blacks hired, perhaps because its state desegregation plan was among the first completed. In Florida, black men and women did not fare as well as might have been expected, in light of the fact that its large community college system provided numerous employment opportunities for faculty members without doctoral degrees. The number of black employees in Georgia did not reflect that state's relatively large black population, and Maryland actually reduced the number of black employees in several occupational categories.

The data supported the widely held belief that blacks are underrepresented across the board in the formerly all-white institutions studied, and that in spite of the Adams employment criterion, relatively little progress has been made to correct the inequities.

Research Team

Anne S. Pruitt, the principal investigator, is Associate Dean of the Graduate School and Professor of Education in the Faculty of Special Services at The Ohio State University. She is a graduate in psychology of Howard University with graduate degrees from Columbia University. Her experience includes serving as dean of students at Albany State College and at Fisk University and on the faculty of Case Western Reserve University. She has authored several publications dealing with desegregation in higher education and is presently engaged in research on the desegregation process in Nashville, Savannah, and Norfolk. She is a member of SEF's Research Task Force.

Elisabeth C. Plax, who served as associate investigator, holds a doctorate in student personnel administration from Case Western Reserve University. She has worked as consultant in career development for Project Choice, a W.E.E.A.P. funded two-year project, and has worked extensively with TRIO programs. Both her master's thesis and doctoral dissertation reflect specific research interest in the status of black professionals in higher education.

William R. Kennedy served as statistical consultant. He holds a doctorate from Pennsylvania State University and has had broad experience in providing statistical consultation at Pennsylvania State, the University of Florida, the Cleveland Public Schools, Case Western Reserve University, and Cuyahoga Community College where he serves as Director of Instructional Development and Student Assessment.

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The goal of this research was to describe and analyze the status of black employees in traditionally white institutions (TWIs) of higher education in eight states affected by the Adams v. Califano desegregation case and to identify patterns of change in that status over a two-year period, 1975-77.

Background

The Adams criteria for the desegregation of state systems of public higher education arose out of the Adams v. Califano lawsuit, initiated in 1970 by the NAACP Legal Defense Fund, requiring HEW to take action to enforce the provisions of Title VI of the Civil Rights Act of 1964. The criteria have become known as "guidelines" and are used by the Office for Civil Rights in reviewing the progress of the states. The guideline with respect to the racial composition of employees at institutions of higher education states in part "an acceptable plan shall commit the state system to the goal of increasing the number and proportion of black employees, academic and non-academic, throughout the system". . . . (Federal Register, 1977). In 1971, judges in the Federal District Court and the Court of Appeals instructed HEW to secure plans from ten states to dismantle their dual systems of segregated higher education, and included the criterion quoted above. These states, which became known as the "Adams states", were Arkansas, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, Pennsylvania, and Virginia. HEW approved the plans of eight states, excluding Louisiana and Mississippi, in June, 1974. These are the states covered in this research.

This research falls into the category of quantitative analysis of the impact of federal action on the employment status of minorities. Such studies inquire into the role of government policy in the progress of black workers. Heckman and Wolpin (1976) analyzed 3,700 firms in the Chicago area sampled by the Equal Employment Commission in each of the four years from 1970 to 1973. Loomis (1979) assessed the progress of American Telephone and Telegraph since its consent decree was signed in 1973. On a metropolitan level, the Cleveland

Breakthrough Survey (1974) monitored the hiring and promotion of minorities and women into key management and professional positions by major employers in the Greater Cleveland area. And, in the same region, the American Jewish Committee has been measuring since 1970 changes in employment and promotion policies and practices of fifty target companies (American Jewish Committee, Cleveland Chapter, 1978). Variables examined in these studies included salaries and levels of employment by race or religion and sex.

The aim of early research and writing on black academicians in white institutions was to identify who they were and where they were located (Moore and Wagstaff, 1974).¹ When in 1974, Moore and Wagstaff reported responses from more than 3,000 black faculty members in white institutions, the number had increased astronomically from the two who were reported to be at Harvard and Chicago in the 1920s. Caplow and McGee (1965) observed in 1958 that "discrimination on the basis of race appears to be nearly absolute" (p. 226). Lipset and Ladd (cited in Peterson *et al.*, 1978) surveyed faculty in 1975 and found that the previous ten-year period had seen virtually no change in the proportion of black faculty in white schools, and that those who had been hired were found predominantly in less prestigious institutions. While, according to Peterson *et al.*, the presence of black faculty in all of higher education had increased from 2.2 percent in 1969 to 2.9 percent in 1973, the percentages of black women surpassed those for black men in both years. Also, black faculty constituted less than one percent of the faculty in TWIs.

The research and writing reported above document race discrimination in higher education. Sex discrimination with respect to black women was also extant. Prior to 1974 Moore and Wagstaff had been unable to locate a definitive study of black women educators in TWIs. It is believed that their numbers were so small as to make research unproductive. Moore and Wagstaff provided a chapter on black women that serves as a benchmark for research on this topic. Both black men and

black women professors and administrators found that black institutions constituted their main access route into academe; and although observation suggests that historically they were employed by TWIs, in those schools they held typical sex-segregated occupations such as maids and janitors.

One source of interest in black women in TWIs derives from the sex discrimination that characterizes the American labor force in general. A Ford Foundation report (Berger, 1980) shows that although the number and percentage of employed women has increased rapidly in the last few years, the gap in earnings between males and females has widened, the condition of minority women is exacerbated by race and sex, and they earn considerably lower salaries than white women.

Academe is no exception. Astin and Bayer (1972) reported that men and women faculty members could be distinguished by salaries, promotions, and teaching loads, with women in every instance being in the more disadvantaged position. Regarding women, Caplow and McGee (1958) wrote: "Women scholars are not taken seriously and cannot look forward to a normal professional career". (p. 226)

The Adams guideline with respect to employment calls for states in virgin territory, primarily in the South, to begin to remove the barriers that had hesitatingly begun to crumble elsewhere in America. It is an unusual historical event, mandating the influx of a new group into the work force of the system of higher education. This research explores the consequences of this phenomenon.

Rationale

Jurisdictional control, admission requirements, and institutional type are important criteria in providing profiles of schools. All schools in this research are publicly controlled. With respect to admission requirements, institutions can be separated into selectivity levels. This concept, generated by Astin's research (1977), advanced the view that institutions of higher education form a hierarchy based on estimates of the average admission test scores of their entering freshmen. In describing the public hierarchy, he used 1,326 institutions in the United States and divided them into the following groups: three levels of

selectivity each among two-year colleges, four-year colleges, and universities. Astin reported that selective institutions spend more than three times more per student than the least selective four-year and two-year colleges. Also, educational and general expenditures, value of buildings, land and equipment and library expenditures increase with selectivity. One of the questions explored in this research is whether or not there is a patterned relationship between institutional selectivity and employment of blacks.

Quantitative analysis of the employment status of blacks is important because there is considerable question as to whether the criteria relating to employment are strong enough. This is of special concern in the case of faculty. Fairfax (1978) noted that HEW permitted the states to submit plans that have no deadlines but rather commitments to do better eventually. Furthermore, the states have adopted national criteria for the hiring of blacks into positions that require the doctorate. Yet national data on faculty by earned degrees show that the master's degree is the highest earned degree for large numbers of faculty members. Aletsek and Gomberg (1978), studying new faculty in 10 selected fields, point out that of the 10,000 faculty hired in 1976-77, only 49% of those hired at public four-year colleges had the doctorate degree or were within two years of earning it. When asked about preference for the doctorate, only 67% of four-year colleges and 8% of two-year colleges responded positively. This preference was even lower in non-science fields. The one strong point in the employment criteria mandates the states to adopt as a goal the hiring of blacks in positions that do not require the doctorate at a level equal to the percentage of blacks who earn master's degrees in the state. Although EEO-6 report forms do not specify degree levels required for various positions, a quantitative analysis such as the one reported here provides a basis for examining this matter at some future date.

Quantitative analysis of employment by both race and sex derives from

additional considerations. Gurin and Pruitt (1977) argued that

typical presentations of sex and race differentials in wages and occupational position have contributed to, rather than corrected, the erroneous picture of black women as having an edge in the market. . . . This has occurred because sex and race discrimination have been treated as totally separate phenomena. (p.89)

To separate the employment of faculty from all others recognizes the distinctive process that takes place in the academic marketplace. It is characterized by a system of collegiality that includes three facets of special importance to the consideration of blacks: data regarding the pool, the "old boy" network, and prestige of prospective faculty members and the hiring institutions. Affirmative Action guidelines have been designed to publicize openings more widely and to make the recruitment process more open. Yet observation suggests that "old boy" networks still impact the process to a considerable degree. It is common practice for greater weight to be assigned to those individuals who have been nominated than to those who would apply. Caplow and McGee (1958) argued that these "networks of influence" were decisive in assuring the placement of students for research and graduate education, and hence for hiring, once the degree was earned. It follows that nominations by prestigious professors from prestigious universities carry the greatest weight.

Despite the fact that Smelser and Content (1980) believe that the current process in faculty recruitment deviates from the Caplow-McGee emphasis upon collegial influence and consensus, observation suggests that it still remains a system over which faculty exert control in a way far different from the control exerted in the hiring of non-faculty, and it is a system into which blacks have not had the same entree as whites. Promotion and tenure are even more collegial than recruitment. They are greatly influenced by political and economic forces affecting higher education. This project will not delve into the processes of faculty hiring nor promotion and tenure. Yet the dynamics are sufficiently

distinctive to call for separation of the two groups, faculty and non-faculty, for analysis.

Analysis of faculty and non-faculty by institutional type raises another issue. On the one hand it could be argued that flagship institutions, being the most prestigious, are also the most visible to enforcement agencies. Under court order they, rather than community colleges, for example, would tend to make the greatest progress in the hiring of blacks. On the other hand, the percentage of black students enrolled could shift attention in the direction of community colleges. In 1978 44% of black students in TWIs were enrolled in community colleges (National Advisory Committee on Black Higher Education and Black Colleges and Universities, 1980), and, with the credentials required for employment at such institutions not as stringent as those at the four-year colleges and universities, community colleges could be expected to lead the way in the employment of blacks.

The following questions directed this project:

1. For the years 1975 and 1977, what was the status of black employees regarding primary occupational activity, salary level, length of annual contract, rank and tenure, and source of funding for salary (a) for all eight states? (b) for four states selected on the basis of the following: percentage of blacks in the population; amount of progress in hiring blacks; change in the hiring of blacks; and presence of diverse, long-standing community college system?
2. How were faculty and non-faculty race and sex groups dispersed across institutional types?

Design

Data Source. Data on the employment of blacks by TWIs were retrieved from computer tapes prepared by the HEW Office for Civil Rights (OCR) for the years

1975 and 1977 (U.S. EEOC, 1975 and 1977).

Because community colleges are relatively new, they were not categorized as traditionally white or black, and therefore all were considered for analysis. A total of 275 institutions were eligible for inclusion. Data on the selectivity of institutions were retrieved from a computer tape prepared by the Higher Education Research Institute (HERI). (Henson, 1973) Since participation in the HERI studies is voluntary, not all TWIs in the OCR file were found in the HERI file. The total available was 232. (See Table 4.1.)

Institutional Types. Four types of institutions were identified using a modification of the classification system set forth by the Carnegie Commission on Higher Education (1973): (1) flagship institutions, (2) doctoral granting institutions, professional schools, and other specialized institutions, (3) comprehensive universities and colleges and liberal arts colleges, and (4) two-year colleges and institutes. (Description of types available from author.)

Selectivity Codes. All institutions were assigned a score according to Astin's coding system, which uses the Scholastic Aptitude Test (SAT) verbal and mathematics (V+M) scores of entering freshmen in public universities and four-year public colleges, and enrollment in two-year public colleges.

Public University

Low	-	SAT V+M less than 1,000
Medium	-	SAT V+M 1,000-1,999
High	-	SAT V+M 2,000 or more

Four-Year Public College

Low	-	SAT V+M less than 935
Medium	-	SAT V+M 935-1,024
High	-	SAT V+M 1,025 or more

Two-Year Public College

Low	-	Enrollment less than 100
		Enrollment 100-249
Medium	-	Enrollment 250-499
		Enrollment 500-999
High	-	Enrollment 1,000 or more

Employment Categories. The EEO-6 form from which the computer tapes were generated asked each institution for information according to the primary occupational activity (POA) of workers. For purposes of data reduction this project combined the categories and created the following four groups: (1) Executive, Administrative, Managerial, and Professional Non-faculty; (2) Faculty; (3) Secretarial/Clerical, Technical/Paraprofessional, and Skilled Crafts; and (4) Service/Maintenance. (Definitions used in the EEOC survey are available from the author.)

Data Collection Instrument. POA is categorized by type of contract, that is, 9-10 month or 11-12 month, and within each category by salary class interval. Faculty is categorized by tenure, non-tenure, or "other" status and, within each category, by rank. The POA labeled Executive, Managerial, Administrative personnel includes some persons with academic rank and tenure. Differences in sex and race of workers are reported by source of funds used to pay salaries. Starting in 1977, the states were asked to complete the category titled New Hires to indicate persons employed for full-time work for the first time or after a break in service (excluding sabbaticals).

Racial Groups. Although the EEO-6 reports categorize employees by five racial groups, this research utilized data on only two, white and black.

Salary Levels. The necessity to reduce data also required that some salary levels reported on the EEO-6 form be combined.

Data Treatment. The statistical Package for the Social Sciences (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975) was used for all data analysis.

Phase I. An overall analysis of the employment of blacks in all eight states was conducted for the base year 1975 and compared with 1977. Each POA was examined for the salary levels and presence of blacks. These data are reported by sex and all are compared with comparable data for white employees. The only primary occupational activity with 9-10 months contracts that had any substantial

representation was faculty.

Phase II. Four states were selected for more intensive analysis. Inspection of the initial run showed that Arkansas had made the greatest progress in employment of blacks in executive, administrative, managerial, and faculty positions over the two-year period, and that Maryland showed the greatest decrease (Table 1.1). Florida was selected because it had the most highly developed community college system, and Georgia was selected because it was the state with the largest proportion of blacks in the population (Table 1.2).

Phase III. In order to determine how the changes observed in Phase I were dispersed across institutional types and between the sexes and races, stepwise discriminant analyses were performed. For this analysis employees were categorized as faculty or non-faculty and analyzed according to the variables of institutional type, selectivity, race, sex, and year of employment.

Limitations. The major limitation of this project is that it relies upon secondary analysis of statistical reports. A related problem was missing data.² Some states provided totals only, without disaggregating data by lines. Only those institutions that completed the EEO-6 forms were included. Also, there is the inevitable difference among institutional respondents in the way they categorize employees.³

Phase I: Analysis of Black and White Employment in the Eight States

POA Analysis: 1975

In 1975 TWIs in the eight states under study employed 188,993 individuals, of whom 84.5% were white, 13.4% black, and two percent, other minorities (Table 2.1).

9-10 Month Contract

Faculty. Table 2.2 shows that females constituted 26.5% of faculty on 9-10 month contracts and blacks 2.9%. White males dominated this group both in numbers and salary level. Both black and white males clustered at level 3, while females

Table 1.1.

Percentage of Black Employees in Executive,
Administrative, Managerial and Faculty Positions
by State and Years, and Percentage Change, 1975-1977

State	Position	Year		% Change in Number 1975-77 ^a
		1975	1977	
Arkansas	EAM ^b	2.1%	4.1%	42.1%
	Faculty ^c	1.2%	2.2%	38.9%
Florida	EAM	5.9	7.2	- 6.5
	Faculty	5.9	6.5	11.1
Georgia	EAM	3.1	3.9	12.1
	Faculty	1.8	1.8	5.0
Maryland	EAM	8.1	7.0	- 13.7
	Faculty	4.5	2.6	-107.1
North Carolina	EAM	4.8	5.4	7.9
	Faculty	4.9	5.0	2.7
Oklahoma	EAM	3.2	3.3	18.2
	Faculty	2.5	2.0	5.9
Pennsylvania	EAM	7.9	6.6	- 26.0
	Faculty	3.5	3.6	11.5
Virginia	EAM	5.4	7.0	17.7
	Faculty	2.1	1.9	13.5

^aPercent Change: $\frac{\text{Difference in Number of black employees 1975-77}}{\text{Total Blacks in 1977}}$

^bExecutive, Administrative, Managerial, 11-12 Month Contracts.

^cFaculty: 9-10 Month Contracts.

Table 1.2

Total and Percent of Employees for 1975 and 1977 by State and Race,
Percent Black of Total Population, 1976

Year						Blacks as a Percent of Total Population 1976 ^a
State	Race	1975		1977		
		Total Employees	%	Total Employees	%	
All Eight States	Total	188,993		199,561		17
	White	159,752	85 %	167,604	84 %	
	Black	25,378	13.4	27,093	13.6	
	Other	3,863	2	4,864	2.4	
Arkansas	Total	8,990		10,926		17.2
	White	7,894	88	9,700	89	
	Black	1,004	11	1,091	10	
	Other	92	1	135	1	
Florida	Total	34,112		36,774		15.5
	White	28,034	82	29,953	81	
	Black	5,034	15	5,363	15	
	Other	1,044	3	1,458	4	
Georgia	Total	23,055		24,752		27.2
	White	18,783	82	19,076	77	
	Black	4,064	18	5,343	22	
	Other	208	1	333	1	
Maryland	Total	15,812		16,137		20.7
	White	13,695	87	13,887	86	
	Black	1,797	11	1,871	12	
	Other	320	2	379	2	

^aSource: U. S. Bureau of the Census, Statistical Abstracts of the United States: 1979. Washington, D.C., 1979.

Table 2.1

Number and Percentage of White, Black, and
Other Minority Employees by State in 1975 and 1977

STATE	EMPLOYEE	Year		Percent Change 1975-1977
		1975	1977	
ADAMS STATES	White N	159,752	167,604	-0.6
	%	84.5	83.9	
	Black N	25,378	27,093	+0.2
	%	13.4	13.6	
	Other N	3,853	4,864	+0.4
	%	2.0	2.4	
	Total N	183,993	199,561	
ARKANSAS	White N	7,694	9,700	+0.9
	%	87.8	88.7	
	Black N	1,004	1,091	-1.2
	%	11.1	9.9	
	Other N	92	135	+0.2
	%	1.0	1.2	
	Total N	8,990	10,926	
FLORIDA	White N	28,034	29,953	-0.7
	%	82.1	81.4	
	Black N	5,034	5,363	-0.3
	%	14.8	14.5	
	Other N	1,044	1,458	+0.8
	%	3.1	3.9	
	Total N	34,112	36,774	
GEORGIA	White N	18,783	19,076	-4.5
	%	81.5	77.0	
	Black N	4,064	5,343	+3.9
	%	17.6	21.5	
	Other N	208	333	+0.4
	%	0.9	1.3	
	Total N	23,055	24,752	
MARYLAND	White N	13,695	13,837	-0.6
	%	86.6	86.0	
	Black N	1,797	1,871	+0.1
	%	11.4	11.5	
	Other N	320	379	+0.3
	%	2.0	2.3	
	Total N	15,812	16,137	

Table 2.2

Salary Levels of Black and White, Full-Time, 9-10 Month Contract Faculty by Sex
for Adams States in 1975 and 1977

Faculty ^a	Salary Level																				
	Total			1. Below \$9,999			2. \$10,000-\$12,999			3. \$13,000-\$15,999			4. \$16,000-\$18,999			5. \$19,000-\$24,999			6. \$25,000 and above		
	1975	1977	%Δ ^b	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ
WM N	25,184	26,381		703	216		4,561	2,023		7,548	6,173		5,608	6,934		5,427	7,489		1,337	3,551	
%			-1.0	2.7	0.8	-1.9	18.1	7.6	-10.5	29.9	23.3	-6.6	22.2	26.2	+4.0	21.5	28.3	+6.8	5.3	13.4	+8.1
BM N	472	536		37	12		114	89		161	154		82	155		64	96		14	30	
%			+0.1	7.8	2.2	-5.6	24.1	16.6	-7.5	34.1	28.7	-5.4	17.3	28.9	+11.6	13.5	17.9	+4.4	2.9	5.5	+2.6
WF N	8,718	9,549		855	228		3,130	2,125		2,799	3,289		1,208	2,299		675	1,331		51	278	
%			+0.8	9.8	2.3	-9.7	35.9	22.2	-13.7	32.1	34.4	+2.3	13.8	24.0	+10.2	7.7	13.9	+6.2	0.5	2.9	+2.4
BF N	511	628		83	31		201	193		154	219		54	132		19	48		0	5	
%			+0.2	16.2	4.9	-11.3	39.3	30.7	-8.5	30.1	34.8	+4.7	10.5	21.0	+10.5	3.7	7.6	+3.9		0.7	+0.7
Total N	34,885	37,094		1,678	487		8,006	4,237		10,662	9,835		6,952	9,520		6,185	8,964		1,402	3,864	
%				4.8	1.3	-3.5	22.9	11.4	-11.5	30.5	26.5	-4.0	19.9	25.6	+5.7	17.7	24.1	+6.4	4.0	10.4	+6.4

^aFaculty: WM - white male
BM - black male
WF - white female
BF - black female

^bChange in Percentage between 1975 and 1977.

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were at level 2. Females were more prominent than males at level 1 (below \$9,999). Analysis by race indicated that 22% of whites were at levels 5 and 6, but only 10% of blacks were.

11-12 Month Contract

Executive, Administrative, Managerial, and Professional Non-faculty. White males, as shown in Table 2.3, were divided almost evenly (17-20%) at all but salary level 1 (8%). In comparison, black males and white females clustered at level 2 and black females at level 1. Almost 88% of the employees at level 1 were black males, black females, or white females, but only 10% of those at level 6 were from those three subgroups. White males dominated the higher paying executive/managerial positions.

Faculty. Table 2.4 indicates that faculty on 11-12 month contracts was even more dominated by white males. While 11% of black females earned salaries at levels 5 and 6, 55% of white males did. Only 12% of white males earned less than \$10,000 annually, but 40% of black females were in that group.

Secretarial/Clerical, Technical/Paraprofessional, and Skilled Crafts. This category of employees was, according to Table 2.5, 73% female and 14% black. Over 90% were female. Yet even here, white males held a higher percentage of the higher paid positions. Technical/paraprofessional positions were evenly divided between males and females, although there was a large number of black females at salary level 6 (\$16,000 and above). White males held 88% of the skilled crafts positions, blacks 9%, and females 4%. Thus, although all four subgroups clustered at salary levels 2 (\$5,000-7,499) and 3 (\$7,500-9,999), white males dominated the skilled crafts positions.

Service/Maintenance. As shown in Table 2.6, all four subgroups clustered at salary level 3 (\$5,000-7,499). Again, the salaries of white males were more often at the top two salary levels (44%), and black females were lowest paid.

Table 2.3

Salary Levels of Black and White, Full-Time, 11-12 Month Contract Executive, Administrative, Managerial, and Professional Non-Faculty Employees by Sex for Adams States in 1975 and 1977

Employee ^a	Salary Level																				
	Total			1. Below \$9,999			2. \$10,000-\$12,999			3. \$13,000-\$15,999			4. \$16,000-\$18,999			5. \$19,000-\$24,999			6. \$25,000 and above		
	1975	1977	% ^b	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ
WM N	15,125	15,371		1,248	648		2,519	1,917		2,991	2,629		2,560	2,741		2,909	3,606		2,898	3,830	
%			-3.8	8.2	4.2	-4.0	16.6	12.4	-4.2	19.7	17.1	-2.6	16.9	17.8	+0.9	19.2	23.4	+4.2	19.1	24.9	+5.8
BM N	911	936		136	70		278	192		209	244		131	196		95	155		62	79	
%			-0.1	14.9	7.4	-7.5	30.5	20.5	-10.0	22.9	26.0	+3.1	14.3	20.9	+6.6	10.4	16.5	+6.1	6.8	8.4	+1.6
WF N	9,018	10,933		3,102	1,496		3,298	4,605		1,478	2,757		614	1,143		366	660		160	172	
%			+3.9	34.3	13.6	-20.7	36.5	42.1	+5.6	16.3	25.2	+8.9	6.8	10.4	+3.6	4.0	6.0	+2.0	1.7	1.5	-0.2
BF N	1,083	1,177		416	230		344	395		201	335		67	132		42	62		13	33	
%			0	38.4	19.5	-18.9	31.7	33.5	+1.8	18.5	28.4	+9.9	6.1	11.2	+5.1	3.8	5.2	+1.4	1.2	2.8	+1.6
Total N	26,137	28,417		4,902	2,444		6,439	7,109		4,879	5,965		3,372	4,212		3,412	4,483		3,133	4,114	
%				18.7	8.6	-10.1	24.6	25.0	+0.4	18.6	20.9	+2.3	12.9	14.8	+1.9	13.0	15.7	+2.7	11.9	14.4	+2.5

^aEmployee: WM - white male
BM - black male
WF - white female
BF - black female

^bChange in Percentage between 1975 and 1977.

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Table 2.4

Salary Levels of Black and White, Full-Time, 11-12 Month Contract Faculty by Sex
for Adams States in 1975 and 1977

Employee ^a	Salary Level																							
	Total			1. Below \$9,999			2. \$10,000-\$12,999			3. \$13,000-\$15,999			4. \$16,000-\$18,999			5. \$19,000-\$24,999			6. \$25,000 and above					
	1975	1977	% ^b	1975	1977	% ^b	1975	1977	% ^b	1975	1977	% ^b	1975	1977	% ^b	1975	1977	% ^b	1975	1977	% ^b	1975	1977	% ^b
WM N	11,862	12,481		360	124		1,014	496		1,762	1,216		2,150	1,598		3,253	3,570		3,323	5,477				
%			+0.1	3.0	0.9	-2.1	8.5	3.9	-4.6	14.8	9.7	-5.1	18.1	12.8	-5.3	27.4	28.6	+1.2	28.0	43.8	+15.8			
BM N	282	308		24	7		45	29		56	55		63	61		57	89		37	67				
%			+0.1	8.5	2.2	-6.3	15.9	9.4	-6.5	19.8	17.8	-2.0	22.3	19.8	-2.5	20.2	28.8	+8.6	13.1	21.7	+8.6			
WF N	3,324	3,468		284	92		807	507		919	900		586	787		482	746		246	436				
%			-0.2	8.5	2.6	-5.9	24.2	14.6	-9.6	27.6	25.9	-1.7	17.6	22.6	+5.0	14.5	21.5	+7.0	7.4	12.5	+5.1			
BF N	334	352		38	16		97	50		94	111		70	83		26	75		9	17				
%			0	11.3	4.5	-6.8	29.0	14.2	-14.8	28.1	31.5	-3.4	20.9	23.5	+2.6	7.7	21.3	+13.6	2.6	4.8	+2.2			
Total N	15,802	16,609		706	239		1,963	1,082		2,831	2,282		2,869	2,529		3,818	4,480		3,615	5,997				
%				4.4	1.4	-3.0	12.4	6.5	-5.9	17.9	13.7	-4.2	18.1	15.2	-2.9	24.1	26.9	+2.8	22.8	36.6	+13.8			

^aEmployee: WM - white male
BM - black male
WF - white female
BF - black female

^bChange in percentage between 1975 and 1977.

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Table 2.5

Salary Levels of Black and White, Full-Time Secretarial/Clerical, Technical/Paraprofessional,
and Skilled Crafts Employees by Sex for Adams States in 1975 and 1977

Employee ^a	Salary Level																				
	Total			1. Below \$5,000			2. \$ 5,000- \$ 7,499			3. \$ 7,500- \$ 9,999			4. \$10,000- \$12,999			5. \$13,000- \$15,999			6. \$16,000 and above		
	1975	1977	%Δ ^b	1975	1977	%Δ	1975	1977	%Δ	1975	1977	%Δ	1975	1977	%Δ	1975	1977	%Δ	1975	1977	%Δ
WM N	12,116	13,029		194	2		2,396	1,373		4,503	3,637		3,846	4,933		886	2,313		291	769	
X			-0.1	1.6	0.1	-1.5	19.7	10.5	-9.2	37.1	27.8	-9.3	31.7	37.8	+6.1	7.3	17.7	+10.4	2.4	5.9	+3.5
BM N	1,608	1,821		85	1		730	509		550	744		184	431		27	94		32	29	
X			+0.1	5.2	0.7	-4.5	45.3	27.9	-17.4	34.2	40.8	+6.6	11.4	23.6	+12.2	1.6	5.1	+3.5	1.9	1.5	-0.4
WF N	32,245	33,450		1,074	119		17,775	11,015		10,654	14,926		2,325	6,661		150	649		267	80	
X			-2.4	3.3	0.3	-3.0	55.1	32.9	-22.2	33.0	44.6	+11.6	7.2	19.9	+12.7	0.4	1.9	+1.5	0.8	0.2	-0.6
BF N	5,721	8,493		349	16		3,465	3,984		1,473	2,851		158	602		9	39		277	1	
X			+2.4	6.1	0.2	-5.9	60.5	53.1	-7.4	25.7	38.0	+12.3	2.7	8.0	+5.3	0.1	0.5	+0.4	4.8	0.0	-4.8
Total N	51,690	55,793		1,702	172		24,366	16,881		17,180	22,158		6,513	12,627		1,072	3,095		867	879	
X				3.2	0.3	-2.9	47.1	30.2	-16.9	33.2	39.7	+6.5	12.6	22.6	+10.0	2.0	5.5	+3.5	1.6	1.5	-0.1

^bEmployee: WM - white male
BM - black male
WF - white female
BF - black female

^aChange in percentage between 1975 and 1977.

Table 2.6

Salary Levels of Black and White, Full-Time Service/Maintenance Employees
by Sex for Adams States in 1975 and 1977

Employee ^a	Salary Level																	
	Total			1. Below \$3,000			2. \$3,000-\$4,999			3. \$5,000-\$7,499			4. \$7,500-\$9,999			5. \$10,000 and above		
	1975	1977	% Δ ^b	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ
WM N	8,480	7,917		52	13		538	51		4,126	2,685		2,802	3,037		962	2,131	
%			-1.9	0.6	0.1	-0.5	6.3	0.6	-5.7	48.6	33.9	-14.6	33.0	38.3	+5.3	11.3	26.9	+15.6
BM N	5,600	5,598		51	43		1,191	88		3,248	3,340		909	1,493		201	634	
%			+0.3	0.9	0.7	-0.2	21.2	1.5	-19.6	58.0	59.6	+1.6	16.2	26.6	+10.4	3.5	11.3	+ 7.8
WF N	4,158	4,336		98	19		678	53		2,310	2,013		963	1,858		109	393	
%			+1.1	2.3	0.4	-1.8	16.3	1.2	-15.0	55.5	46.4	-9.0	23.1	42.8	-19.7	2.6	9.0	+ 6.4
BF N	5,280	5,332		41	12		1,558	107		2,935	3,809		646	1,021		100	383	
%			+0.5	0.7	0.2	-0.4	29.5	2.0	-27.4	55.5	71.4	+15.9	12.2	19.1	+6.9	1.8	7.1	+ 5.3
Total N	23,518	23,183		242	87		3,965	299		12,619	11,847		5,320	7,409		1,372	3,541	
%				1.0	0.3	-0.7	16.8	1.0	-15.7	53.6	42.0	-11.5	22.6	26.2	+3.6	5.8	12.5	+ 6.7

^aEmployee: WM - white male
BM - black male
WF - white female
BF - black female

^bChange in Percentage between 1975 and 1977,

Full-time Faculty by Rank and Tenure

Tenured. In 1975, only a little over 1% (404) of tenured faculty were black, and less than 19% were female (4,909). According to Table 2.7, 4,755 or 23% of white males and 90 or 40% of black males had been tenured with less than associate professor rank. Among tenured female faculty, however, 49% of white females and 76% of black females held less than associate professor appointments. On the other hand, 38% of white males were full professors, but only 15% of the blacks and 17% of white females. Both sex and race differences emerged. Forty-nine percent of tenured black females were at the instructor/lecturer/other rank.

Non-tenured, On Track. Table 2.8 indicates that in 1975 this group included only 4% blacks. White females made up 27% of the POA group in contrast to black females who were at 2%. As with tenured faculty, black females clustered at the instructor/lecturer level while the other three groups were at the assistant professor level.

Other Faculty. In 1975, as shown in Table 2.9, other faculty, (neither tenured nor on the tenure track), accounted for 13% of all black and white faculty. There were almost twice as many males as females, and blacks made up 6% of the group. All four subgroups clustered heavily at the instructor/lecturer/other rank. Comparing these percentages with tenured faculty, this category contained twice as many black men and four times as many black women. Compared to non-tenured, on track black faculty, the percentage of black men was the same, but there were twice as many black women in this category.

Temporary and Part-time Employees

Temporary employees included, as indicated by Table 2.10, 10% blacks (4% black males and 6% females) and 47% females. Faculty made up the bulk of this group (70%) and represented 29% of all faculty. Most of these faculty members were non-tenured and not on track (95%), and blacks were a larger percentage (8%) here than for any other faculty group. In addition, among executive/managerial and

Table 2.7

Rank of Black and White, Full-Time Tenured Faculty by Sex for Adams States in 1975 and 1977

Faculty ^a	Rank														
	Total			Professor			Associate Professor			Assistant Professor			Other		
	1975	1977	% Δ ^b	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ
WM N	21,360	23,176		8,213	9,290		8,392	9,260		2,919	3,113		1,836	1,513	
%			0	38.4	40.0	+1.6	39.2	39.9	+0.7	13.6	13.4	-0.2	8.5	6.5	-2.0
BM N	223	295		46	69		87	118		38	50		52	50	
%			+0.2	20.6	23.3	+2.7	39.0	40.0	+1.0	17.0	19.6	+2.6	23.3	16.9	-6.4
WF N	4,808	5,307		833	1,042		1,648	1,871		1,384	1,514		943	880	
%			+0.2	17.3	19.6	+2.3	34.2	35.2	+1.0	28.7	28.5	-0.2	19.6	16.5	-3.1
BF N	181	256		14	53		30	66		49	70		88	67	
%			+0.2	7.7	20.7	+13.0	16.5	25.7	+9.2	27.0	27.3	+0.3	48.6	26.1	-22.5
Total N	26,572	29,034		9,106	10,454		10,157	11,315		4,390	4,755		2,919	2,510	
%				34.2	36.0	+1.8	38.2	38.9	+0.7	16.5	16.3	-0.2	10.9	8.6	-2.3

^aFaculty: WM - white male
 BM - black male
 WF - white female
 BF - black female

^bChange in Percentage between 1975 and 1977.

Table 2.8

Rank of Black and White, Full-Time Non-Tenured, On Track Faculty by Sex for Adams States in 1975 and 1977

Faculty ^a	Rank														
	Total			Professor			Associate Professor			Assistant Professor			Other		
	1975	1977	% Δ ^b	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ
WM N	10,821	9,529		330	339		1,411	1,415		6,844	6,141		2,236	1,634	
%			-2.3	3.0	3.5	+0.5	13.0	14.8	+1.8	63.2	64.4	+1.2	20.6	17.1	-3.5
BM N	317	310		5	6		44	27		159	181		109	96	
%			+0.1	1.5	1.9	+0.4	13.8	8.7	-5.1	50.1	58.3	+8.2	34.3	30.9	-3.4
WF N	4,328	4,193		75	71		320	367		2,158	2,266		1,775	1,489	
%			+1.7	1.7	1.6	-0.1	7.3	8.7	+1.4	49.8	54.0	+4.2	41.0	35.5	-5.5
BF N	356	402		5	18		32	26		141	171		178	187	
%			+0.5	1.4	4.4	+3.0	8.9	6.4	-2.5	39.6	42.5	+2.9	50.0	46.5	-3.5
Total N	15,822	14,434		415	434		1,807	1,835		9,302	8,759		4,298	3,406	
%				2.6	3.0	+0.4	11.4	13.7	+2.3	58.7	60.6	+1.9	27.1	23.5	-3.6

^aFaculty: WM - white male
 BM - black male
 WF - white female
 BF - black female

^bChange in Percentage between 1975 and 1977.

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Table 2.9

Rank of Black and White, Full-Time, Other Faculty by Sex for Adams States in 1975 and 1977

Faculty ^a	Rank														
	Total			Professor			Associate Professor			Assistant Professor			Other		
	1975	1977	% Δ ^b	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ	1975	1977	% Δ
WM N	5,717	5,967		195	193		362	472		1,166	1,414		3,994	3,888	
%			+0.4	3.4	3.2	-0.2	6.3	7.9	+1.6	20.3	23.6	+3.3	69.8	65.1	-4.7
BM N	234	228		0	1		4	7		45	57		185	163	
%			-0.1		0.4	+0.4	1.7	3.0	+1.3	19.2	25.0	+5.8	79.0	71.4	-7.6
WF N	3,244	3,384		23	41		98	133		654	679		2,469	2,531	
%			+0.2	0.7	1.2	+0.5	3.0	3.9	+0.9	20.1	20.0	-0.1	76.1	74.7	-1.4
BF N	335	311		1	3		7	11		36	53		291	244	
%			-0.4	0.2	0.9	+0.7	2.0	3.5	+1.5	10.7	17.0	+6.3	86.8	78.4	-8.4
Total N	9,530	9,890		219	238		471	623		1,901	2,203		6,939	6,826	
%				2.2	2.4	+0.2	4.9	6.2	+1.3	19.9	22.2	+2.3	72.8	69.0	-3.8

^aFaculty: WM - white male
 BM - black male
 WF - white female
 BF - black female

^bChange in Percentage between 1975 and 1977.

Table 2.10

Primary Occupational Activity of Black and White Temporary Employees
by Sex for Adams States in 1975 and 1977

Employee ^a	Primary Occupational Activity								
	Total			Faculty			Non-Faculty		
	1975	1977	% Δ ^b	1975	1977	% Δ	1975	1977	% Δ
WM N	14,600	15,432		12,022	12,997		2,578	2,435	
%			-0.5	82.3	84.3	+2.0	17.7	15.7	-2.0
BM N	1,296	1,135		738	601		558	534	
%			-0.8	56.9	53.0	-3.9	43.0	47.0	+4.0
WF N	12,203	13,756		7,311	7,709		4,892	6,047	
%			+2.3	60.0	56.0	-4.0	40.0	43.9	+3.9
BF N	1,832	1,628		1,016	838		816	790	
%			-1.0	55.5	51.5	-4.0	44.5	48.5	+4.0
Total N	29,931	31,951		21,087	22,145		8,844	9,806	
%				70.4	69.3	-1.1	29.5	30.7	+1.2

^aEmployee: WM - white male
BM - black male
WF - white female
BF - black female

^bChange in Percentage between 1975 and 1977

professional, non-faculty employees, the majority of each subgroup, except for black males who were split evenly between the two types of positions, were in professional, non-faculty positions.

POA Analysis: 1977

By 1977, employees in the TWIs of the eight state systems increased by 5%. Black faculty were now 1.6% of the group, a decrease of 0.2%, although their total numbers did increase slightly.

More substantial was the increase in the percentage of other minorities, from 2% to 2.4%, representing a numerical increase of 20.6%. (Table 2.1) In 1977, barely 6% of all full-time employees were paid from soft money funds and blacks still constituted 15% of the group, but a 5% increase in numbers.

9-10 Month Contract

Faculty. Table 2.2 indicates that 3.2% of faculty with 9-10 month contracts were blacks (0.3% increase). White males comprised 71% of the group and clustered at salary levels 5 and 4. White females (26%) and black females (2%) both clustered at level 3. Black males (1%) were split between levels 3 and 4. Forty-one percent of white males were at levels 5 and 6, but only 24% of black males, 17% of white females and 8% of black females. At the bottom of the scale, 8% of white males were at levels 1 and 2, but 36% of black females were at those two levels.

11-12 Month Contract

Executive, Administrative, Managerial, and Professional Non-faculty. By 1977, although the total number of employees in this category had increased by 8% and the number of blacks had increased by only 5.6%, the percentage of blacks had decreased by 0.2%. As shown in Table 2.3, the percentage of white males had decreased and that of white females had increased. In the main, white males clustered at salary level 6, black males at level 3, and both white females and black females at level 2. White males dominated the higher paid executive/administrative positions. The percentage of all subgroups at level 1 had decreased substantially; however, the percentages of those at level 6 had not changed to any great extent, except for black females whose percentage at that level doubled and whose actual number

increased from 13 to 33 (2.5 times).

Faculty. The percentage of black faculty remained at just under 4%, and females still made up about 23%. Although all four subgroups made progress in salary levels, black females lagged behind. They had the largest percentage of individuals at level 1 and the smallest at level 6. Females in general fell behind the males, clustering at level 3 while white males clustered at level 6 and black males at level 5.

Secretarial/Clerical, Technical/Paraprofessional, and Skilled Crafts. In 1977, this category consisted of 2.5% more blacks. Table 2.5 shows that it was still made up of 73% females. The male and female composition of the group had not changed. Although all four subgroups had made progress up the salary levels, clearly it was white males who profitted the most.

Service/Maintenance. Although this category decreased by 1%, white females and black females both increased 1%. White males continued to head the salary scale, and although black males and all females clustered at level 3, the difference between them was clear. Only 46% of white females were still at level 3 compared to 60% of black males and 71% of black females. Finally, while the percentage of white males at level 6 had increased from 11% to 27%, it had only increased a few points for each of the other subgroups.

Full-time Faculty by Rank and Tenure

Tenured. Tenured faculty reflected some major differences by both race and sex, as indicated in Table 2.7. Tenured faculty represented 54.4% of all full-time faculty (a 3% increase) and included only 1.8% blacks (a 0.3% increase although their number increased by 26.7%). The number of females had increased by 10.3%. White males clustered at the full professor rank, black males and white females at the associate professor rank, and black females at the assistant professor rank. It was black females, however, who had made the most progress, increasing from 8% to 20% at the full professor rank, and decreasing from 49% to

25% at the instructor/lecturer/other level.

Non-tenured On Track Faculty. Table 2.8 shows that non-tenured, on track faculty decreased by 9.6% between 1975 and 1977, while the percentage of blacks within the category increased by 0.6%. All but black males and females declined in percentage in the instructor/lecturer/other level. This decline suggests that more blacks were leaving before promotion and tenure. There were 23 fewer blacks at the associate professor level in 1977 than in 1975, a 43.4% decrease.

Other Faculty. In general other faculty continued to remain at the instructor/lecturer/other rank as shown in Table 2.9. The number of individuals in this category increased by 3.6%, but the percentage of blacks decreased by 0.5%.

Temporary and Part-time Employees

Temporary employees increased by 6.3%. Table 2.10 indicates, however, that the percentage of blacks hired as temporary employees decreased by 2% (their number decreased by over 13%). The percentages of both black males and black females in these positions decreased by 4%. The percentage of blacks in executive, administrative, managerial, non-faculty professional positions had also decreased. Overall, the largest percentage increase occurred among white females (2%), the increase coming primarily from secretarial/technical/skilled crafts positions. They also decreased by 4% in faculty positions, although their number actually increased.

New Hires

New Hires was a category added to the EEO-6 reporting form in 1977, and the data, therefore, have no 1975 equivalents for comparisons. In 1977, according to Table 2.11, the largest proportion of new hires was in secretarial/technical/skilled crafts positions, with the service/maintenance POA accounting for 45% of the blacks. Only 4.8% of the blacks went into faculty positions. Where blacks are concerned, the executive, administrative, managerial, and professional non-faculty category shows 2.3% more females than males.

Phase II: Analysis of Selected States

Findings on four selected states, Arkansas, Florida, Georgia, and Maryland,

Table 2.11

Primary Occupational Activity of Black and White New Hires
by Sex for Adams States in 1977

Employee ^a	Total	Primary Occupational Activity			
		Executive, Administrative, Managerial & Professional Non-Faculty	Faculty ^b	Secretarial/Clerical, Technical/Paraprofessional, and Skilled Crafts	Service/ Maintenance
WM N	6,244	1,042	1,965	1,263	974
%		16.6%	47.4%	20.2%	15.5%
BM N	1,134	73	99	203	759
%		6.4%	8.7%	17.9%	66.9%
WF N	8,322	1,600	1,599	4,559	564
%		19.2%	19.2%	54.7%	6.7%
BF N	1,482	130	129	744	479
%		8.7%	8.7%	50.2%	32.3%
Total N	17,182	2,845	4,792	6,769	2,776
%		16.5%	27.8%	39.3%	16.1%

^aEmployee: WM - white male
BM - black male
WF - white female
BF - black female

^bFaculty: tenured, non-tenured, on-track, and other

are summarized here individually along the lines of the analysis of all states. (Detailed tables are available from the author.)

ARKANSAS

In 1969 Arkansas completed a plan for desegregating its system of higher education. Cobb (1979) points out that Arkansas officials moved swiftly to develop its plan. The process was nearly devoid of disruptions caused by local preferences or federal guidelines and did not meet with the public outrage that characterized many other Adams states.

In 1975 Arkansas employed only 8,990 of whom 11% were black (Table 2.1). It also had the smallest percentage of blacks in its population. Yet the percentage increase in black professional employment was the largest. Four percent of all full-time employees were being paid from soft money funds, and 13% of the group was black. By 1977, the total number of employees in Arkansas had grown by 54.9%. The number of black employees had increased by 8% although their percentage of total employees had actually decreased by 1.1%. Only 1% of all full-time employees were paid from soft money funds, but 16% of them were black.

In 1977, 18.4% of all black and white employees were new hires. Table 3.10 indicates that 7.8% of those in the executive category and 4.4% of those in the faculty category were black. The executive category also included 71.2% females, and the faculty category 33.4% females.

The data show that Arkansas increased the number of blacks in all professional positions. For example, the number of blacks in executive, administrative, managerial, and professional non-faculty positions increased from 88 to 133. Although the numbers are small, they represent a 33.8% increase in 2 years, and increases of similar scope can be found in the other categories.

FLORIDA

In 1975, TWIs in Florida employed 34,112 individuals. Table 2.1 indicates that blacks made up 15% of the total. Soft money funds were used to pay in full

Table 3.10

Primary Occupational Activity of Black and White New Hires
By Sex in Arkansas in 1977

Employee ^a	Primary Occupational Activity				
	Total	Executive/ Managerial; Professional, Non-Faculty	Faculty	Secretarial	Service/ Maintenance
WM N	556	66	168	152	170
%		11.8	30.2	27.3	30.5
BM N	164	4	6	25	129
%		2.4	3.6	15.2	78.6
WF N	996	158	82	642	114
%		15.8	8.2	64.4	11.4
BF N	268	15	6	104	143
%		5.5	2.2	38.8	53.3
Total N	1,984	243	262	923	556
%		12.2	13.2	46.5	28.0

^aEmployee: WM - white male
BM - black male
WF - white female
BF - black female

AP:kmk

8% of all full-time black and white staff, and black employees made up 17% of this group (7% male and 10% female).

By 1977 Florida employed 7% more people. (Table 2.1). Black employees still made up 15% of the group although this actually represented a 0.2% decrease in two years. In that same period, there was a 0.9% increase in the number of other minorities. The 7% increase was distributed across all categories so that none of the subtotals showed any notable change. By 1977 soft money funds paid only 5% instead of 8% of full-time black and white staff, and black employees made up 14% rather than 17% of the group.

New hires in 1977 represented almost 6% of all employees, and blacks were 15% of the group, as shown in Table 3.20. Non-tenured faculty made up 32%, with 9% black. Executive and professional non-faculty made up 12%, with 9% black. These data suggest encouraging trends since blacks in both categories had rarely constituted more than 7%.

A large percentage of minority employees, expected because of the large and diverse community college system, was not found. In fact, there were decreases in the number of blacks in executive, administrative, managerial, and professional non-faculty positions and in temporary faculty, which makes up about one-third of all faculty. While the percentage of blacks in faculty positions did increase, the numbers were still miniscule.

GEORGIA

Blacks in 1976 accounted for 27.2% of Georgia's population (U.S. Bureau of the Census, 1979), the largest percentage of blacks in any of the states under analysis in this report.

In 1970 the Office for Civil Rights (OCR) notified the Board of Regents of the University System that the state had failed to desegregate its dual system of higher education (Holmes, 1979). Instead of submitting a plan, the Board of Regents replied that the state had made great strides in that direction during

Table 3.20

Primary Occupational Activity of Black and White New Hires
By Sex in Florida in 1977

Employee ^a	Primary Occupational Activity				
	Total	Executive/ Managerial, Professional, Non-Faculty	Faculty	Secretarial	Service/ Maintenance
WM N	747	90	376	187	94
%		12.0	50.3	25.0	12.5
BM N	147	10	28	36	75
%		6.8	19.0	24.4	51.0
WF N	1,073	148	290	610	25
%		13.7	27.0	56.8	2.3
BF N	165	14	34	86	31
%		8.4	20.6	52.1	18.7
Total N	2,132	262	726	919	225
%		12.2	34.0	43.1	10.5

^aEmployee: WM - white male
BM - black male
WF - white female
BF - black female

AP:kmk

the 1960s. To the contrary, OCR, in its 1973 response, noted that blacks constituted only 0.006% (30 of 4,857) of the faculty members at the TWIs and that no black faculty were located in any of the system's two-year colleges. Unlike Arkansas, the process of compliance in Georgia had been characterized by one disruption after another.

In 1975 TWIs in Georgia employed over 23,000 persons of whom 18% were black (Table 2.1). Males accounted for 53%. Eight percent of the black workers were male and 10% female. Four percent of all employees were paid in full from soft money funds, with 11% of the total being black.

By 1977 Georgia's TWIs had hired 7% more workers. Data indicate a 4% increase in the total number of blacks (Table 2.1). They were found overwhelmingly in the full-time, 11-12 month contract category. Analysis of the data showed that the increase took place primarily in the secretarial and service POAs while the executive and faculty categories changed very little. The institutions also made greater use of soft money. The total percentage of full-time employees paid in full from soft money funds increased by 1%, but more striking is the fact that the percentage of blacks in this group increased from 11% to 21%.

As seen in Table 3.30, new hires constituted 12% of all employees for 1977, and blacks made up 18%. The percentage of blacks ranged from 56% of all new hires in the service/maintenance category down to 5% in the faculty category. The percentages of blacks in the executive, administrative, managerial, and professional non-faculty categories were similar to the percentages of blacks already in these categories in 1975.

Because Georgia had the largest percentage of blacks in its population of any of the states under analysis, it could be expected that Georgia had the largest pool of potential employees and would have as a consequence increased the proportions of blacks. The data presented above indicate that such was not the case. Specifically, in 1975, Georgia employed a percentage of blacks in

Table 3.30
Primary Occupational Activity of Black and White New Hires
By Sex in Georgia in 1977

Employee ^a	Primary Occupational Activity				
	Total	Executive/ Managerial; Professional, Non-Faculty	Faculty	Secretarial	Service/ Maintenance
WM N	1,149	186	482	291	190
%		16.2	41.9	25.3	16.5
BM N	289	9	13	25	242
%		3.1	4.4	8.6	83.7
WF N	1,307	159	224	837	87
%		12.1	17.1	64.0	6.6
BF N	265	17	23	109	116
%		6.4	0.7	41.1	43.7
Total N	3,010	371	742	1,262	635
%		12.3	24.6	41.9	21.0

^aEmployee: WM - white male
BM - black male
WF - white female
BF - black female

AP:kmk

professional positions similar to that of the other states, and this percentage did not increase substantially during the two years under consideration.

MARYLAND

Of the eight states examined in this study, Maryland showed the greatest changes in employment of blacks. Employees totalled 15,182 and consisted of 87% whites, 11% blacks, and 2% others (Table 2.1). This was in a state that, in 1975, had a 20% black population. One percent of all full-time employees were paid in full from soft money funds, and 21% of this group was black.

By 1977 the total number of employees had increased by 2%, but the number of blacks had increased by only 0.3% (Table 2.1). By 1977, 1.7% of all full-time employees were being paid in full from soft money funds, and of this group, 15% were black. This was a 6% decrease over the two-year period.

Although faculty employed on 11-12 month contracts shrank by 17% in the two-year period, more striking is the 51.7% decrease in the number of blacks. By contrast the percentage of white males increased. Among temporary and part-time employees blacks decreased in number by 12%. The percentage of blacks as temporary faculty decreased by almost 1%, but their number decreased by 36. The number of executive/professional non-faculty increased by 27% while the percentage of blacks in that POA decreased slightly, although their actual number increased by three.

New hires accounted for almost 7% of all employees, and 18% of them were black. Specifically, black professionals accounted for 15% of the executive/professional non-faculty positions, 2% of the new tenured faculty, and almost 5% of the non-tenured faculty (Table 3.40). These new hires, however, did not counteract the cuts in number.

The data show that Maryland either made no progress in the hiring of black employees or actually cut their number by a percentage unparalleled by the general cutbacks in its work force. This is particularly true in the faculty positions where, for example, the number of blacks in full-time, 11-12 month contract faculty positions was cut by nearly 52%. At the same time, although tenured faculty increased by 256, this number included only 5 blacks.

Phase III: Discriminant Analysis

Over the two-year period employment of blacks increased by 0.2%. The percentage for black men decreased by 0.3%, but for black females it increased by 0.4%. In order to determine how these changes were dispersed across institutional types and between the sexes and races, stepwise discriminant analyses were performed

Table 3.40

Primary Occupational Activity of Black and White New Hires
By Sex in Maryland in 1977

Employee ^a	Primary Occupational Activity				
	Total	Executive/ Managerial; Professional, Non-Faculty	Faculty	Secretarial	Service/ Maintenance
WM N	467	86	213	77	91
%		18.4	45.6	16.4	19.4
BM N	120	12	6	16	86
%		10.0	5.0	13.3	71.6
WF N	415	58	114	220	23
%		13.9	27.4	53.0	5.5
BF N	76	13	9	29	25
%		17.1	11.8	38.1	32.8
Total N	1,078	169	342	342	225
%		15.6	31.7	31.7	20.8

^aEmployee: WM - white male
BM - black male
WF - white female
BF - black female

AP:kmk

(Klecka, 1975). These analyses began with the desire to distinguish statistically among four groups of institutions: flagship, doctoral, comprehensive colleges, and community colleges. It was expected that these institutions would differ according to several variables. Selectivity was chosen as a variable for forced inclusion into the analysis. Table 4.1 lists the numbers of each type of institution in the three selectivity categories (high, medium, and low). Employees were categorized as faculty and non-faculty. Total faculty were taken from the salary categories (instead of rank and tenure categories). Seven columns were included from each school's EE0-6 forms for the years 1975 and 1977: total employees on rows, total male, white male, black male, total female, white female, and black female.

The white male, black male, white female, and black female totals were converted to proportions of the total number of employees listed in a given totals row of the EE0-6 reporting form. The proportions obtained were the actual proportions of the defined groups in the EE0-6 database; thus, the combinations of the male and female proportions do not add to 1.0 as the Hispanic and other ethnic groups were not included (Table 4.3). Similar arithmetic results are obtained for racial proportion (Table 4.2). This allowed comparison across institutions by using proportions of persons hired rather than actual number of persons hired, which would have unduly weighted the scores in favor of the large schools and would also have hidden percentage changes.

Differences in the relative proportions of the categories above between 1975 and 1977 were also calculated and utilized for an analysis.

In this study, the Astin selectivity scores were input into the equations to control for any differences between the schools on the selectivity variable before the group proportions were entered into the analyses.

The first stepwise selection criterion used in the analysis was the Wilks' lambda statistic. The second was "Rao's V," which has been characterized as a generalized distance measure.

Table 4.1
Institutional Type by Selectivity^a

Selectivity	Institutional Type				
	Flagship	Doctoral	Comprehensive College	Community College	Total
Low					
N	1	1	35	31	68
Row %	1.5	1.5	51.5	45.6	24.7
Column %	12.5	8.3	53.0	16.4	
Medium					
N	5	5	18	107	135
Row %	3.7	3.7	13.3	79.3	49.1
Column %	62.5	41.7	27.3	56.6	
High					
N	2	1	7	19	29
Row %	6.9	3.4	24.1	65.5	10.5
Column %	25.0	8.3	10.6	10.1	
Total Prior Probabilities	8 0.0345	7 0.0302	60 0.2586	157 0.6767	232
Missing ^b					
N	-	5	6	32	43
Column%	-	41.7	9.1	16.9	15.6
Row%	-	11.6	14.0	74.4	
TOTAL	8	12	66	189	275
%	2.9	4.4	24.0	68.7	100.0

^aPercentages may not add to 100 due to rounding.

^bNo selectivity score.

Table 4.2

Mean Percentages for Faculty and Non-Faculty by Institutional Type
By Race and Sex, 1975 and 1977^a

P O A ^b	Institutional Type								Total	
	Flagship		Doctoral		Comprehensive College		Community College			
	1975	1977	1975	1977	1975	1977	1975	1977	1975	1977
Faculty										
White	95.85	94.95	93.16	94.02	95.84	95.04	93.64	93.31	94.27	93.83
Black	1.66	1.80	4.61	2.61	2.04	2.19	3.66	4.34	3.20	3.65
Male	81.18	80.04	78.91	78.32	72.70	71.40	63.09	62.34	66.68	65.78
Female	16.32	16.71	18.86	18.30	25.18	25.82	34.22	35.31	30.80	31.70
Non-Faculty										
White	83.80	80.73	74.64	76.54	82.80	82.77	85.39	84.22	84.37	83.49
Black	14.55	17.11	24.40	22.42	14.98	14.65	13.00	13.66	13.91	14.30
Male	44.45	43.32	44.46	42.57	45.58	45.03	46.50	44.34	46.13	44.43
Female	53.91	54.52	54.58	56.39	52.30	52.39	51.89	53.54	52.15	53.36

Note: The proportions have been transformed into percentages for display.

^aPercentages do not add to 100 due to rounding. Furthermore, only black and white employees are included: Hispanic and others are excluded.

^bPrimary Occupational Activity.

Table 4.3

Mean Numbers and Relative Percentages of Faculty and Non-Faculty by Institutional Type, Sex, and Sex by Race, 1975 and 1977^a

P O A ^b	Institutional Type												Total		
	Flagship			Doctoral			Comprehensive College			Community College					
	1975	1977	Δ	1975	1977	Δ	1975	1977	Δ	1975	1977	Δ	1975	1977	Δ
Faculty															
Total	1,559.75	1,553.00	-6.75	1,187.43	1,216.14	28.71	778.70	751.02	12.32	85.78	89.70	3.92	209.40	215.86	6.40
Total Male	1,295.87	1,289.87	-6.00	947.43	934.43	37.00	177.57	185.75	8.18	54.60	56.04	1.44	156.14	159.14	4.00
White Male %	80.17	78.91	-1.26	76.20	76.92	0.72	71.62	70.34	-1.28	61.72	60.82	-0.90	65.35	64.39	-0.96
Black Male %	1.01	1.14	0.13	2.72	1.40	-1.32	1.08	1.06	-0.02	1.37	1.53	0.16	1.32	1.39	0.07
Total Female	263.87	263.12	-0.75	240.00	231.71	-8.29	61.13	65.27	4.14	31.18	33.66	2.48	53.25	55.72	2.47
White Female %	15.67	16.05	0.38	16.96	17.09	0.13	24.23	24.70	0.47	31.92	32.49	0.57	28.92	29.44	0.52
Black Female %	.65	.66	0.01	1.90	1.21	-0.69	.96	1.13	0.17	2.30	2.82	0.52	1.89	2.26	0.38
Non-Faculty															
Total	4,078.37	4,367.12	288.75	2,745.71	2,881.00	135.29	344.05	347.70	3.65	107.38	116.36	8.98	385.12	406.19	21.07
Total Male	1,817.62	1,883.25	65.63	1,121.86	1,125.71	3.85	158.97	157.10	-1.87	50.28	52.36	2.08	171.66	174.97	3.31
White Male %	38.36	37.16	-1.2	34.07	34.21	0.14	38.77	38.31	-0.46	39.56	37.33	-2.23	39.15	37.48	-1.67
Black Male %	6.09	6.16	0.7	10.39	8.37	-2.02	6.81	6.72	-0.09	6.94	7.01	0.07	6.98	6.95	-0.03
Total Female	2,260.75	2,483.87	223.12	1,623.86	1,755.29	131.43	185.08	190.60	5.52	57.10	64.00	6.90	213.46	231.22	17.76
White Female %	45.44	43.57	-1.87	40.57	42.33	1.76	44.13	44.46	0.33	45.83	46.90	1.07	45.22	46.01	0.79
Black Female %	8.46	10.95	2.49	14.01	14.05	0.04	8.17	7.93	-0.24	6.06	6.64	0.58	6.93	7.35	0.42

^aPercentages will not add to 100% since only black and white hires are listed.^bPrimary Occupational Activity.

Based on the results of the overall analysis of POAs and the four-state analyses in which blacks and whites, males and females, and faculty and non-faculty groups were found to differ, it was anticipated that these variables might also differ by institutional type. Five separate stepwise discriminant analyses (Klecka, 1975) were performed:

- a. 1975 data for black faculty, white faculty, white non-faculty, and black non-faculty.
- b. 1977 data for black faculty, white faculty, white non-faculty, and black non-faculty.
- c. 1975 data of the above groups further broken down by sex.
- d. 1977 data of the above groups further broken down by sex.
- e. 1977-1975 differences in the proportions of the groups in c and d listed above.

Throughout all of the following analyses, the group sample sizes were used to determine the prior probabilities which are listed in Table 4.1.

Racial Proportions - 1975

The first analysis was performed on black and white faculty groups for 1975.

The first variable entered for determination of group membership was selectivity, the second was the proportion of black faculty employed in 1975, while the third variable to contribute significantly to the variance within the sample was the proportion of black non-faculty employed in 1975. The stepwise analysis is summarized in Table 4.4.

The matrix of pairwise multivariate F ratios appears in Table 4.5. The results of this analysis show that the flagship institutions were not significantly different from the other three types of school, while the three remaining school types were significantly different from one another.

When discriminant functions were computed for the variables that were found to contribute significantly to group membership information (discrimination, that is, reported significant differences between the institutional types), it was found that two significant discriminant functions were present (Table 4.5).

Table 4.4

STEPWISE DISCRIMINANT ANALYSIS RESULTS FOR FACULTY AND NON-FACULTY BY RACE, 1975

Step Number	Variable Entered	F to Enter or Remove	Number Included	Wilks' Lambda	Sig.	Rao's V	Change in Rao's V	Sig. of Change
1	Selectivity	6.92492	1	.91649	.000	20.77478	20.77478	.000
2	Faculty black	3.55945	2	.87532	.000	32.02175	11.24697	.010
3	Non-faculty black	4.01856	3	.83099	.000	44.47291	12.45116	.006

Table 4.5

Matrix of Pairwise Multivariate F Ratios for the Final Step
For Selectivity and Proportion of Black and White Faculty and Non-Faculty, 1975

Type of Institution	Flagship	Doctoral	Comprehensive
Doctoral	1.44		
Comprehensive	2.31	3.33*	
Community college	1.61	2.70*	10.6*

* $p \leq .05$

The selectivity variable proved interesting in that it demonstrated that selectivity and group membership were not necessarily a one-to-one relationship. True, the introduction of enrollment size with the use of what was an SAT criterion for four year schools requires a cautious air about many of the conclusions, but not all flagship schools scored in the higher selectivity measures. The analyses that have included selectivity have controlled statistically for that factor.

Table 4.6 reports the group means, the univariate F tests, and the standardized discriminant function coefficients for each significant variable. The absolute value of the coefficient indicates its importance in the interpretation of the function. The sign indicates its direction toward the positive or negative end of the continuum of interpretative statements. The discriminant coefficients in Table 4.6 indicate that the first function forms a continuum with the selectivity and proportion of black faculty hired in 1975 versus the proportion of black non-faculty hired in 1975. The second discriminant function indicates that when the effects of the first discriminant function are partialled out, the selectivity scores and the proportion of black non-faculty are on one end of a continuum while the proportion of black faculty are on the other, i.e., the second function appears to be a mirror image of the first. Thus, for the first discriminant function which accounted for 72% of the observed variance, selectivity and the proportion of black faculty appear to contribute positively in predicting group membership, while there is an inverse relationship between those variables with the proportion of black non-faculty hired in 1975 for predictive purposes (Table 4.7).

These analyses suggest that when the selectivity variable is included, the primary variables in distinguishing the four types of institutions are the relative percentage of black faculty and non-faculty employees.

Table 4.6

Institutional Types, Means, Univariate F Tests, and Standardized Discriminant Function Coefficients for Selectivity and Proportion of Black Non-Faculty and Faculty, 1975

Variable	Group Means				F ^a	Standardized Discriminant Function Coefficients	
	Flagship	Doctoral	Comprehensive	Community Colleges		Function 1	Function 2
Selectivity	2.1250	2.0000	1.5333	1.9236	6.93 ^{**}	.69355	.47936
Non-faculty black	0.1455	0.2440	0.1498	0.1300	7.87 [*]	-.41633	.99072
Faculty black	0.0166	0.0461	0.0204	0.0366	4.01 ^{**}	.66209	-.27893
						72.2 ^b	19.8 ^b

^a df = 3,228

^b Percent of variance explained.

* p < .05

** p < .01

Table 4.7

Function Interpretations for the Discriminant Coefficients
For Selectivity and Proportion of Black and Non-Faculty, 1975

Function No.	Positive	Negative
1	____ selectivity ____ black faculty	____ black non-faculty
2	____ black non-faculty ____ selectivity	____ black faculty

The group centroids, the mean discriminant scores for each of the four institutional types on the respective functions, are listed in Table 4.8. The comprehensive colleges are at one end of the continuum for function 1, and the community colleges at the other end. The flagship and doctoral institutions are clustered together in the middle. On function 2, however, the community colleges and the comprehensive colleges assume the middle positions in the continua, while the doctoral schools are located on the extreme end. Function 1 was labeled a selectivity-proportion of black faculty dimension, while function 2 was labeled a proportion of black non-faculty (after function 1 explained variance was removed).

Table 4.6 indicates that the doctoral institutions had a greater proportion of black employees in both the faculty and non-faculty categories than did the flagship and comprehensive colleges, while the community colleges had roughly an equivalent proportion of black faculty as the doctoral institutions. All three of the variables were found to be significantly different among the four institutional types with univariate F tests. The multivariate F ratios point toward the doctoral institutions, comprehensive colleges, and community colleges, as being the cause of the differences. The doctoral institutions appear to be significantly higher, as a group, than comprehensive and community colleges.

Community colleges in 1975 could be distinguished positively by selectivity (enrollment) and the presence of black faculty (function 1). This suggests that the community colleges after selectivity has been accounted for were more likely to employ black faculty than the other institutional types. Conversely, the comprehensive colleges were more likely to employ black faculty at lower proportions than the other schools. After accounting for function 1, function 2 appeared to show that the doctoral and flagship schools were more likely to employ black non-faculty than the comprehensive and community colleges.

Racial Proportions - 1977

The second analysis, paralleling the first, was performed on the black and

Table 4.8

Centroids of Groups in Reduced Space for the Stepwise
Discriminant Analysis for Selectivity and
Proportion of Black and Non-Faculty, 1977

Group	Institutional Type	Function 1	Function 2
1	Flagship	.01395	.40412
2	Doctoral	.04126	.98532
3	Comprehensive	.58802	-.03952
4	Community college	.22217	-.04942

white faculty and non-faculty groups for 1977. This produced two significant discriminant functions. The results of the stepwise analysis (Table 4.9) essentially replicated the 1975 data analysis with selectivity, proportion of black faculty, and the proportion of black non-faculty being the significant variables.

The pairwise multivariate F ratios (Table 4.10) replicated the 1975 data analysis as well, with the added significant difference between the flagship schools and the community colleges. Again, the doctoral, comprehensive, and community colleges were significantly different from one another on the mean vectors (three variables).

Table 4.11 lists the four group means for each of the significant variables from the stepwise analysis as well as the univariate F tests, discriminant function coefficients, and the percent variance accounted for. Table 4.12 displays the relative placement of the three variables on the two discriminant function continua. Table 4.12 is identical to Table 4.7 (1975 data), indicating that over the two-year time period the variables that distinguished most among the four institutional types did not change. For both 1975 and 1977 the variable with the largest coefficient was proportion of black faculty (function 1). Function 1 seems to be representing a selectivity-proportion of black non-faculty dimension after accounting for the first function.

An examination of the centroids (Table 4.13) indicates that while the comprehensive and community colleges have remained as the "extreme" groups on the first function, the flagship and doctoral schools have moved away from the community colleges and toward the comprehensive schools. Table 4.11 shows that the profile for the proportion of black employees changed somewhat, with the relative proportion in the doctoral institutions falling by 2% and the community colleges growing by 0.7%. The flagship and comprehensive schools' proportions remained

Table 4.9

STEPWISE DISCRIMINANT ANALYSIS RESULTS FOR FACULTY AND NON-FACULTY BY RACE, 1977

Step Number	Variable Entered	F to Enter or Remove	Number Included	Wilks' Lambda	Sig.	Rao's V	Change in Rao's V	Sig. of Change
1	Selectivity	6.92492	1	.91649	.000	20.77478	20.77478	.000
2	Faculty black	5.79710	2	.85127	.000	39.06307	18.28829	.000
3	Non-faculty black	5.05138	3	.79778	.000	55.20882	16.14574	.001

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Table 4.10

Matrix of Pairwise Multivariate F Ratios for the Final Step
For Selectivity and Proportion of Black and White and Non-Faculty, 1977

Type of Institution	Flagship	Doctoral	Comprehensive College
Doctoral	0.32962		
Comprehensive college	2.62507	2.65933*	
Community college	2.86084*	3.55163 *	12.97650**

* $p < .05$

** $p < .01$

Table 4.11

Institutional Types, Means, Univariate F Tests, and Standardized Discriminant Function Coefficients for Selectivity and Proportion of Black Non-Faculty and Faculty, 1977

Variable	Group Means				F ^a	Standardized Discriminant Function Coefficients	
	Flagship	Doctoral	Comprehensive	Community Colleges		Function 1	Function 2
Selectivity	2.1250	2.000	1.5333	1.9236	6.93 ^{**}	.53544	.77983
Non-faculty black	0.1711	0.2242	0.1465	0.1366	1.70	-.50873	.76779
Faculty black	0.0180	0.0261	0.0219	0.0434	5.87 ^{**}	.86470	-.48722
						74.67 ^b	23.84 ^b

^adf = 3,228

^bPercent of variance explained.

* p < .05

** p < .01

Table 4.12

Function Interpretations for the Discriminant Coefficients
For Selectivity and Proportion of Black Faculty and Non-Faculty, 1977

Function No.	Positive	Negative
1	___ selectivity ___ black faculty	___ black non-faculty
2	___ selectivity ___ black non-faculty	___ black faculty

Table 4.13

Centroids of Groups in Reduced Space for the Stepwise
Discriminant Analysis for Selectivity and
Proportions of Black Faculty and Non-Faculty, 1977

Institutional Group Type		Function 1	Function 2
1	Flagship	-.30130	.80038
2	Doctoral	-.47197	.91545
3	Comprehensive	-.60386	-.16032
4	Community College	.26717	-.02036

roughly the same. On the second function, the flagship schools appeared to move toward the doctoral schools as their relative proportion of black non-faculty increased. After selectivity was controlled, community colleges appear to have been more likely to employ black faculty, perhaps even more so in 1977 than in 1975. After the relative proportions of black faculty are accounted for, flagship and doctoral schools were more likely to hire blacks in non-faculty positions.

Racial and Sexual Proportions - 1975

The third analysis was performed using nine variables: the relative proportions of black and white non-faculty for both male and female, black and white faculty for both male and female, and selectivity for the year 1975. This analysis identified five variables that contributed significantly to the discriminant function analyses: selectivity, white female faculty, black female non-faculty, black female faculty, and white male faculty, in that order. Two significant discriminant functions were found in the data.

The stepwise analysis results are listed in Table 4.14. Along with the selectivity variable, four of the eight relative proportions entered into the analysis were significant contributors in the discriminant functions: white female faculty, black female non-faculty, black female faculty, and white male faculty. Comparison of these results with the first analysis (racial proportions in 1975) shows that the variables containing the relative proportions of white employees entered the list of significant variables when the relative proportions were broken down by sex. Three of the four proportions were for women, one for white men, and neither of the two proportions for black men entered the analysis.

The pairwise multivariate F ratios (Table 4.15) indicate that the community colleges were significantly different from the other three institutional types, and the doctoral and comprehensive schools were significantly different from one another. The flagship and doctoral schools were not different from one another.

Table 4.14

STEPWISE DISCRIMINANT ANALYSIS RESULTS FOR FACULTY AND NON-FACULTY BY RACE AND SEX, 1975

Step Number	Variable Entered	F to Enter or Remove	Number Included	Wilks' Lambda	Sig.	Rao's V	Change in Rao's V	Sig. of Change
1	Selectivity	6.92492	4	.59240	.000	145.45424	28.52048	.000
2	Faculty white female	21.03564	1	.91649	.000	20.77478	20.77478	.000
3	Non-faculty black female	8.35686	2	.71713	.000	85.33160	64.55682	.000
4	Faculty black female	6.72454	3	.64552	.000	116.93375	31.60215	.000
5	Faculty white male	1.76858	5	.57870	.000	153.68652	8.23228	.041

Table 4.15

Matrix of Pairwise Multivariate F Ratios, for the Final Step
for Selectivity and Proportion of Black and White Faculty
And Non-Faculty by Sex, 1975

Type of Institution	Flagship	Doctoral	Comprehensive College
Doctoral	0.64003		
Comprehensive college	2.52919	3.04058*	
Community college	7.42957**	8.17459**	18.68264**

* $p < .05$

** $p < .01$

Table 4.16 lists the four group means for each of the significant variables from the stepwise analysis as well as the univariate F tests, discriminant function coefficients, and the percent of variance accounted for. Table 4.17 displays the relative clustering of the five variables on the two discriminant function continua. The first discriminant function appears to be a female faculty cluster versus a selectivity-white male faculty-black female non-faculty grouping. Function 2 appears to have a white faculty cluster versus a selectivity-black female cluster.

Examination of the group centroids (Table 4.18) reveals that the flagship and doctoral schools formed a cluster (replicating the pairwise multivariate F ratio results) at the positive end of the continuum, the community colleges were isolated on the negative end, and the comprehensive schools were positioned between the two locations. The profile of group means indicates that the flagship and doctoral schools had the highest scores on selectivity and proportion of white male faculty, while community colleges were lowest on the percentage of white male faculty (Table 4.16). The community colleges were highest on the proportions of black female faculty (0.0230) and white female faculty (0.3192). The community colleges employed almost twice the relative proportion of faculty women, white and black, than did the flagship and doctoral schools. The discriminant analysis demonstrated those widely disparate differences were not removed when selectivity was statistically controlled.

The centroid distribution (Table 4.18) on the second function again showed the flagship and doctoral schools clustered together, but the comprehensive schools were the farthest removed from them with the community colleges moving toward the more senior institutions. Interpretation of the second function with the univariate mean is difficult because the second function was computed on residuals.

However, it is suspected that after the relatively low proportions of black and white faculty women in the flagship and doctoral schools accounted for in the first function, the residuals showed a racial dimension to further explain the

Table 4.16

Groups, Means, Univariate F Tests, and Standardized Discriminant Function Coefficients for Selectivity, and Proportions of Black and White Non-Faculty and Faculty by Sex, 1975

Variable	Group Means				F ^a	Standardized Discriminant Function Coefficients	
	Flagship	Doctoral	Comprehensive	Community Colleges		Function 1	Function 2
Selectivity	2.1250	2.000	1.5333	1.9236	6.93**	-.22966	.87079
Non-faculty black female	0.0846	0.1401	0.0817	0.0606	5.36**	.56421	.24192
Faculty white male	0.8017	0.7620	0.7162	0.6172	19.60**	.30592	-.03374
Faculty white female	0.1567	0.1696	0.2423	0.3192	20.15**	-.51239	-.36287
Faculty black female	0.0065	0.0190	0.0096	0.0230	5.36**	-.34221	.24114
						86.70 ^b	11.35 ^b

^adf = 3,228

^bPercent of variance explained.

* p < .05

** p < .01

Table 4.17
Function Interpretations for the Discriminant Coefficients
for Selectivity and Proportions of Black Faculty and Non-Faculty
and White Faculty and Non-Faculty by Sex, 1975

Function No.	Positive	Negative
1	— black female non-faculty — white male faculty	— selectivity — white female faculty — black female faculty
2	— selectivity — black female non-faculty — black female faculty	— white male faculty — white female faculty

Table 4.18

Centroids of Groups in Reduced Space for the Stepwise Discriminant
Analysis for Selectivity and Proportions of Black Faculty and
Non-Faculty and White Faculty and Non-Faculty by Sex, 1975

Group	Institutional Type	Function 1	Function 2
1	Flagship	1.23059	0.76889
2	Doctoral	1.42228	0.89175
3	Comprehensive	0.73871	-0.31251
4	Community college	-0.40843	0.04049

differences between the institutional types, that is, the first explanation (function 1) has a sexual component and the second (function 2) a racial component. Thus, one is left with a conclusion somewhat different than the 1975 racial proportions analysis. That particular analysis led to a conclusion that community colleges were more likely to have black employees than the other institutional types. When the sexual dimension was added, the conclusion was modified: after controlling for selectivity, community colleges were more likely to employ black women than were the other two institutional types. Of the two functions, the first (sexual) accounted for approximately 87% of the variance while the second function (racial) accounted for approximately 11%. In the 1975 data, the sexual dimension was of more weight than the racial dimension. The important work group proportion that distinguishes between the four institutional types appears to be black women.

The other conclusion is that the reported shift (after the first function) in the relative percentage of black non-faculty in the first analysis for flagship and doctoral schools may have been caused by black non-faculty women as a group. The mean percentages were 0.0846, 0.1401, 0.0817, and 0.0606 for the flagship, doctoral, comprehensive, and community colleges, respectively. The relative percentages of faculty and non-faculty black men did not enter into the discriminant analysis between the institutional types for 1975 data.

Racial and Sexual Proportions - 1977

The fourth analysis paralleled the third analysis but used 1977 data. The results differed from those obtained with 1975 data. The same five variables found to be significant participators in discriminating between the four institutional types with 1975 data were also identified when 1977 data were used. Again, two significant discriminant functions were found.

Table 4.19 lists the stepwise analysis results. Of interest in this set of data was the fact that the relative proportions of white male and white female

Table 4.19

STEPWISE DISCRIMINANT ANALYSIS RESULTS FOR FACULTY AND NON-FACULTY BY RACE AND SEX, 1977

Step Number	Variable Entered	F to Enter or Remove	Number Included	Wilks' Lambda	Sig.	Rao's V	Change in Rao's V	Sig. of Change
1	Selectivity	6.93	4	.91649	.000	20.77478	20.77478	.000
2	Faculty white male	21.44	1	.71414	.000	86.86289	66.08811	.000
3	Non-faculty black female	9.18	2	.63659	.000	121.09116	34.22828	.000
4	Faculty black female	5.33	3	.59432	.000	144.30603	23.21487	.000
5	Faculty white female	5.27	5	.55512	.000	168.53400	5.16916	.000

faculty switched positions in the ordering of the stepwise solution process. In 1975, the relative proportion of white female faculty was the first variable chosen after the selectivity variable was forced in first, and the proportion of white male faculty was the last significant variable chosen. The reverse occurred for the 1977 data: the relative proportion of white male faculty was the first variable chosen after the selectivity variable and the white female faculty variable last. However, as the other variables entered the analysis, the white male faculty relative proportion declined in discriminating power. When the relative proportion of white female faculty was selected on step five the relative proportion of white male faculty was very close to being removed as a significant contributor. Thus, after the last significant step (5), the relative importance of the variables in the list was essentially the same as the 1975 results.

The pairwise multivariate F ratios (Table 4.20) indicated that the community colleges were significantly different from the other three institutional types. The comprehensive schools were also significantly different from the other three types (for 1975 data they were not different from the flagship schools). Replicating the 1975 results, the doctoral and flagship schools were not different from one another.

Table 4.21 lists the four group means for each of the significant variables from the stepwise analysis, the respective univariate F tests, standardized discriminant function coefficients, and the percentage of variance accounted for. Table 4.22 displays the relative clustering of the five variables on the two discriminant function continua. These two functions are replications of the two discovered in the 1975 data. The first function was a selectivity-female faculty versus a white male faculty-black female non-faculty dimension (one might tentatively conceptualize this function as faculty women versus other). The second was a selectivity-black women versus white faculty dimension.

Table 4.20

Matrix of Pairwise Multivariate F Ratios for the Final Step
for Selectivity and Proportions of Black Faculty
And Non-Faculty and White Faculty and Non-Faculty by Sex, 1977

Type of Institution	Flagship	Doctoral	Comprehensive College
Doctoral	0.20051		
Comprehensive college	3.64612**	3.75631*	
Community college	9.71790**	9.66860**	18.39200**

* $p < .05$

** $p < .01$

Table 4.21

Institutional Types, Means, Univariate F Tests, and Standardized Discriminant Function Coefficients for Selectivity and Proportions of Black and White Non-Faculty and Faculty by Sex, 1977

Variable	Group Means				F ^a	Standardized Discriminant Function Coefficients	
	Flagship	Doctoral	Comprehensive	Community College		Function 1	Function 2
Selectivity	2.1250	2.0000	1.5333	1.9236	6.9249**	-.17197	.90888
Non-faculty black female	0.1095	0.1405	0.0793	0.0664	4.3072**	.57664	.38907
Faculty white male	0.7891	0.7692	0.7034	0.6082	20.6813**	.24705	-.14491
Faculty white female	0.1605	0.1709	0.2470	0.3249	21.1752**	-.51223	-.33805
Faculty black female	0.0066	0.0121	0.0113	0.0282	7.4971**	-.46356	.13657
						87.05 ^b	12.41 ^b

^adf = 3,228

^bPercent of variance explained.

**p < .01

Table 4.22

Function Interpretations for the Discriminant Coefficients
for Selectivity and Proportions of Black Faculty and Non-Faculty
And White Faculty and Non-Faculty by Sex, 1977

Function No.	Positive	Negative
1	— black female non-faculty — white male faculty	— selectivity — white female faculty — black female faculty
2	— selectivity — black female non-faculty — black female faculty	— white male faculty — white female faculty

The group centroids in Table 4.23 display the clustering of the flagship and doctoral schools versus the community colleges, with the comprehensive schools positioned between them. This relative positioning of the four institutional types with 1977 data replicated the 1975 results. However, there were some differences in the mean scores (listed in Table 4.21); for example, the flagship schools were still the highest on selectivity scores and relative percentage of white male faculty, but the percentage did decline a little over one percent. Community colleges were the lowest on the relative percentage of white male faculty and in fact dropped even lower in 1977 versus 1975 (almost a full percentage point).

The community colleges were highest on the relative proportions of black and white female faculty (0.0282 and 0.3249, respectively), and actually increased those members from 1975. In 1977, as in 1975, the community colleges employed almost twice as many faculty women as the flagship or doctoral schools. While there were shifts in the relative proportions from 1975 to 1977 that indicated some progress was being made, the relative positioning of the institutional types appeared to remain somewhat constant when a selectivity dimension was included in the analyses. The conclusions drawn with the 1975 data did not change with 1977 data. Community colleges appear to be employing women (and in particular, black women) in greater numbers than the other institutional types, after a selectivity variable is accounted for.

Differences in Racial and Sexual Proportions - 1977-75

The fifth analysis took the nine variables used in the previous two sections and computed differences by subtracting the 1975 relative proportions from the 1977 data. Each proportion was calculated from that year's data as the base; there was not a common base between the two years. The differences should then be viewed as differences in the relative proportions between 1975 and 1977. After selectivity was forced into the analysis first, there were only two variables (both dealing

Table 4.23

Centroids of Groups in Reduced Space for the Stepwise Discriminant
Analysis for Selectivity and Proportions of Black Faculty and
Non-Faculty and White Faculty and Non-Faculty by Sex, 1977

Group	Institutional Type	Function 1	Function 2
1	Flagship	1.48295	.82576
2	Doctoral	1.60376	.84829
3	Comprehensive	0.68731	-.37201
4	Community college	-0.40996	.06227

with black women) to significantly contribute in discriminating between the four institutional types (Table 4.24). They were the relative proportional differences between black women non-faculty and black women faculty. Table 4.25 reflects different relationships in the pairwise multivariate F ratio matrix from those in some of the previous analyses. The community colleges are significantly different from the comprehensive schools but not from the flagship and doctoral schools. The comprehensive schools are significantly different from the flagship schools and the community colleges. Again, as in all of the analyses, there was not a significant difference between the flagship and doctoral schools (in a multivariate sense).

Table 4.26 presents the group means and standardized discriminant coefficients, and Table 4.27 depicts the relative positioning of the significant variables. Selectivity, black female non-faculty and black female faculty were all located in the positive portion of the first continuum. The second function placed black female faculty on one end of its continuum and selectivity and black female non-faculty on the other.

The group centroids (Table 4.28) point toward viewing the flagship schools and the comprehensive schools as being farthest apart on the first function, with the community colleges located between them. The profile of means (Table 4.26) shows that flagship schools had the highest proportion gain in hiring of black female non-faculty while remaining essentially constant in the relative proportion of black female faculty. The comprehensive schools were the only institutional types to show a relative proportion decline in black female non-faculty. The second function centroids show the community colleges and the comprehensive schools at the positive side of the group placement, with the doctoral schools at the negative end and the flagship schools nearby. The means in Table 4.26 show that the doctoral schools had a relative proportion loss for black faculty women, while

Table 4.24

STEPWISE DISCRIMINANT ANALYSIS RESULTS FOR FACULTY AND NON-FACULTY DIFFERENCES, 1975-1977

Step Number	Variable Entered	F to Enter or Remove	Number Included	Wilks' Lambda	Sig.	Rao's V	Change in Rao's V	Sig. of Change
1	Selectivity	6.92492	1	.91649	.000	20.77478	20.77478	.000
2	Non-faculty black women ^{female}	3.05578	2	.88092	.000	30.59970	9.82492	.020
3	Faculty black female	2.73061	3	.85010	.000	39.02794	8.42824	.038

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Table 4.25

Matrix of Pairwise Multivariate F Ratios for the Final Step
for the Differences in Selectivity and Proportions of Black and White
Non-faculty and Faculty Between 1977 and 1975

Type of Institution	Flagship	Doctoral	Comprehensive College
Doctoral	1.23225		
Comprehensive college	4.74584**	1.89414	
Community college	1.88520	1.66495	8.93655**

** p < .01

Table 4.26

Institutional Types, Means, Univariate F Tests, and Standardized Discriminant Function Coefficients for Differences in Selectivity and Proportions of Black and White Non-Faculty and Faculty Between 1975 and 1977, by Sex

Variable	Group Means				F ^a	Standardized Discriminant Function Coefficients	
	Flagship	Doctoral	Comprehensive	Community Colleges		Function 1	Function 2
Selectivity	2.1250	2.0000	1.5333	1.9236	6.9249 ^{**}	0.86470	-0.07566
Non-faculty black female	0.0249	0.0004	-0.0024	0.0058	2.6698 [*]	0.46758	-0.35248
Faculty black female	0.0002	-0.0069	0.0017	0.0052	2.4992	0.26976	0.97094
						78.72 ^b	16.94 ^b

^adf = 3, 228

^bPercent variance explained.

^{*}p < .05

^{**}p < .01

Table 4.27
Function Interpretation for the Discriminant Coefficients
for Differences in Selectivity and Proportioning of
Black and White Faculty and Non-Faculty between 1975 and 1977

Function No.	Positive	Negative
1	_____ selectivity _____ black female non-faculty _____ black female faculty	
2	_____ black female faculty	_____ selectivity _____ black female non-faculty

Table 4.28

Centroids of Groups in Reduced Space for the Stepwise Discriminant
Analysis for Differences in Selectivity and Proportions
of Black and White Non-Faculty and Faculty Between 1975 and 1977, by Sex

Group	Institutional Type	Function 1	Function 2
1	Flagship	.67034	-.533356
2	Doctoral	-.03202	-.70529
3	Comprehensive	-.55829	-.02352
4	Community college	.18060	.06762

the community colleges had the highest relative proportion gain.

Thus, not only do the community colleges have the highest relative proportion of black faculty women in 1975 and 1977, the data demonstrate that they led the four institutional types in the rate of positive gain for that variable. The community colleges also had the second highest relative proportion gain in black female non-faculty. The flagship schools' relatively large positive increase in black non-faculty women was not matched by a corresponding increase in the relative proportion of black faculty women.

CONCLUSIONS

Comparison of the years 1975 and 1977 shows that improvement in salary levels occurred for all sex-race groups. Yet in every POA, white males predominated at the highest salary levels and black women at the lowest. For blacks the change in relative POA share was greater in non-faculty than in faculty positions. Those paid from soft-money funds decreased, but the number of blacks increased, constituting 15% of such employees.

When the opportunity came in 1977 to hire new workers, 85% of those hired were white. Most of the blacks hired were in secretarial/clerical, technical/paraprofessional, skilled crafts positions. Only 8.7% were appointed to the faculty.

In 1977 black males who were tenured faculty members clustered at the associate professor level, a step up in the two year period. Those who were non-tenured but on track shrank in percentage at the associate professor level. This raises the question of whether they were being promoted or leaving before promotion. Although those who were classified as other remained at the instructor/lecturer level, their relative employment share decreased, as did their share of the temporary and part-time positions.

For black females, a tenured faculty position meant an assistant professorship, for it was at this level that they predominated. Yet, in the two-year period they did make the greatest progress at the rank of professor and the

greatest decrease at the instructor/lecturer rank. In non-tenured on-track appointments, they decreased at both the instructor level and the associate professor level. Again, the question of departure or promotion is raised. In the category of other faculty as compared with tenured and non-tenured on track, they were found in much larger numbers and at the lowest level, instructor/lecturer. In sum, blacks were less likely to have tenure, and few held faculty positions of high rank.

The number of white female faculty increased both in tenured and non-tenured on track appointments as well as in the ranks of other faculty. The largest percentage increase in the temporary and part-time category occurred among white females who were hired in secretarial/clerical, technical/paraprofessional, and skilled crafts positions. While white females' percentage of temporary and part-time faculty decreased, their numbers increased.

The primary gainers were white males. They clustered at the rank of professor and increased in all others with the exception of the lowest, instructor/lecturer. Their numbers increased in the category of other faculty and in temporary and part-time employees.

By sex, the two-year period saw more gains for men than for women. One explanation for this condition lies in the fact that the Adams employment criterion was preceded by executive orders calling for compliance where race was concerned, whereas sex as a criterion surfaced much later. But the difference in gains still reflects the nation as a whole. Low-paying, dead-end jobs are the ones held primarily by women. Even when both men and women work full-time year-round, the average woman worker's earnings are approximately three-fifths of men's. Analysis of year-round full-time employees in 1977 revealed that income was lowest for minority race women (of whom blacks constituted 90%), with women largely employed as clerical and service workers. When POAs were examined, again the TWIs mirrored the national scene.

Arkansas, the smallest employer of workers in its higher education system, did document the greatest increases in proportions of blacks hired. Speculation suggests that this occurred because of the head start provided by the state desegregation plan completed in 1969. Black men and women did not fare as well as might have been expected in Florida, whose community college system could have provided employment opportunities for those without the doctorate. The number of black employees in Georgia did not reflect its relatively larger black population. And Maryland, with two years in which to increase the number of blacks employed, actually cut back in several POAs.

Considering institutional types, this study shows that by race, after selectivity was controlled, the community colleges were more likely to employ black faculty. Flagship and doctoral institutions were more likely to hire blacks in non-faculty positions, after the relative proportions of black faculty are accounted.

When the sexual dimension was considered, the above conclusion was modified: after controlling for selectivity, community colleges were more likely to employ black women than flagship and doctoral schools. The important group proportion that distinguished between the four institutional types appeared to be black women.

Suggestions for Further Study

The data base assembled for analysis in this study provides a valuable resource for secondary analysis. For example, discriminant analyses that exclude community colleges are needed. Study of the employment of blacks in executive and managerial positions by institutional type would be useful. Special attention should be directed to the disaggregation of data on black women and black men in non-faculty positions in the various types of schools. The paucity of information about the black woman academician demands more research focused on this group.

The growth of part-time employment in academe in general is reflected in the TWIs analyzed in this study. Although it is a desirable option for certain classes of workers, it can be a dead end (Tuckman, 1978). Research is needed on

the trend toward utilization of blacks in large numbers in low-level positions at TWIs in the Adams states.

As the monitoring of desegregation in public higher education continues, a longitudinal study should be set in motion. As biennial reports are received, the computer program and files used in this report can form the basis for future analyses.

Analysis is needed in which a parity index, based on the population of sex-race groups in each state, is calculated. Also, direct rather than stepwise discriminant analysis would allow one to compare what the string of variables entered into the analysis statements looks like when all variables are included. Moreover, it would be useful to determine the rate of wage increase of those hired and the rate at which workers move up through the institutional hierarchy. Studies have begun to appear (e.g., Fleming, Gill, and Swinton, 1978; Smelzer and Content, 1980), but more is needed on the arrangements that influence recruitment, hiring, and promotion of blacks in TWIs.

Footnotes

¹For comprehensive analyses of black faculty in higher education, see Fleming, Gill, and Swinton (1978), Moore and Wagstaff (1974), and Weinberg (1977).

²The condition of the data originally supplied by the Office for Civil Rights was not good. The first data tape did not have the 1977 data, and the 1975 data was unreadable by standard software packages. The second data tape was readable but contained raw files. The format of the data was different for 1975 and 1977, an important piece of information that was not provided by the OCR. The raw data files had inconsistencies, for example, the actual forms sent in by some schools had different totals for faculty when looking at salary figures versus faculty rank data. Thus, comparative analyses between 1975 and 1977 could differ to the extent of the differences inherent in the heuristics used to group the data. Many of the schools did not report all of the data requested in the EEO-6 form. Any schools that did not file an EEO-6 form for both years were eliminated from the study.

³For example, a close analysis of faculty data indicated a discrepancy between full-time faculty as counted by adding 9-10 month and 11-12 month contracts together (EEO-6 form lines 18 and 74) on the one hand, and by using the total of all full-time faculty by rank and tenure (line 136) on the other. In Maryland for example, in 1975, lines 18 and 74 totalled 140 blacks but line 136 showed 132. To insure consistency, all faculty totals used in Phases I and II were compiled by totalling line 136 plus lines 138, 139, and 140 (temporary faculty) and line 56 (full-time faculty with less than 9-10 month contracts).

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